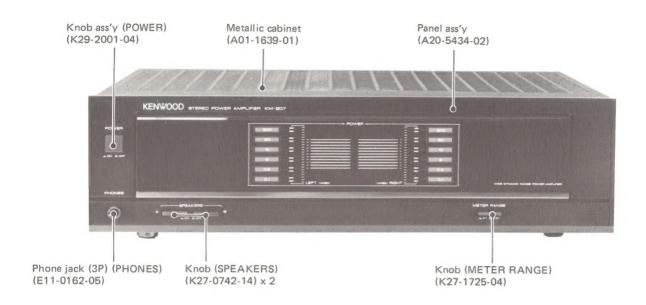
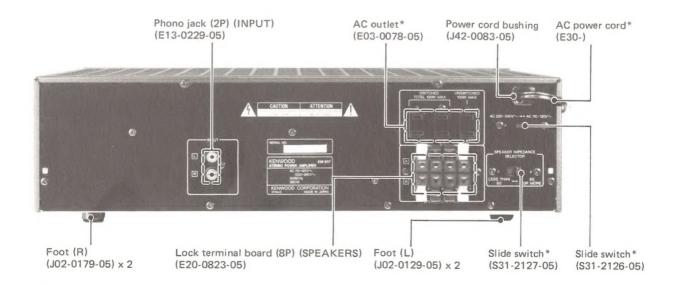
KM-207 SERVICE MANUAL

KENWOOD

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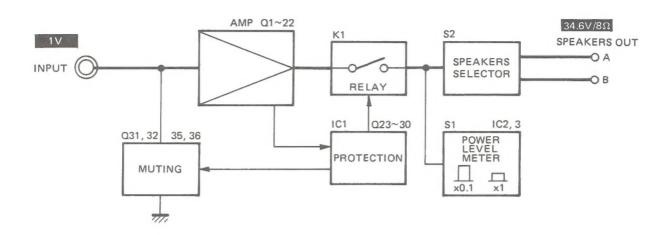






BLOCK DIAGRAM/CIRCUIT DESCRIPTION

BLOCK LEVEL DIAGRAM



CIRCUIT DESCRIPTION

Description of Components

POWER AMPLIFIER UNIT (X07-2430-XX, X07-2460-XX)

Components	Application/Function	Operation/Condition/Compatibility
Q1 ~ 4	Initial stage differential amplifier	Low noise.
Q5 ~ 8	2nd stage differential amplifier	
Q9, 10	3rd stage amplifier	Class A cascade current amplifier.
Q11, 12	3rd stage amplifier	Class A cascade voltage amplifier.
Q13, 14	Bias temperature compensation	
Q15 ~ 18	Class B driver	
Q19 ~ 22	Power amplifier	
Q23 ~ 30	Current protection	
Q31, 32	Input muting	
Q33	Driver for realy driver IC	Current protection.
Q34	Constant voltage control	
Q35, 36	Muting driver	
Q37	AVR	For meter driver.
IC1	Relay driver IC	
IC2, 3	Meter driver	



ADJUSTMENT/REGLAGE/ABGLEICH

ADJUSTMENT

No.	ITEM	INPUT SETTINGS	OUTPUT SETTINGS	AMPLIFIER SETTINGS	ALIGNMENT POINTS	ALIGN FOR	FIG.
1	IDLE CURRENT	_	Connect a DC voltmeter across CP1 (L) CP2 (R)	VOLUME: 0	VR1 (L) VR2 (R)	9 ∼ 18 m V	(a)

REGLAGE

N°	ITEM	REGLAGE DE L'ENTREE	REGLAGE DE LA SORTIE	REGLAGE DE L'AMPLIFICATEUR	POINS L'ALIGNEMENT	ALIGNER POUR	FIG.
1	COURANT DE POLARISATION		Connecter un voltmètre de CC sur CP1 (G) CP2 (D)	VOLUME: 0	VR1 (G) VR2 (D)	$9\sim18\mathrm{mV}$	(a)

ABGLEICH

NR.	GEGENSTAND	EINGANGS- EINSTELLUNG	AUSGANGS- EINSTELLUNG	VORSTARKER EINSTELLUNG	ABGLEICH- PUNKTE	ABGLEICHEN FUR	ABB.
1	LEERLAUFSTROM	-	Einen Gleichspannungs- messer über CP1 (L) CP2 (R) anschließen.	VOLUME: 0	VR1 (L) VR2 (R)	9 ~ 18m∀	(a)



VOLTAGE CHECK TABLE

X07-2430-XX X07-2460-XX

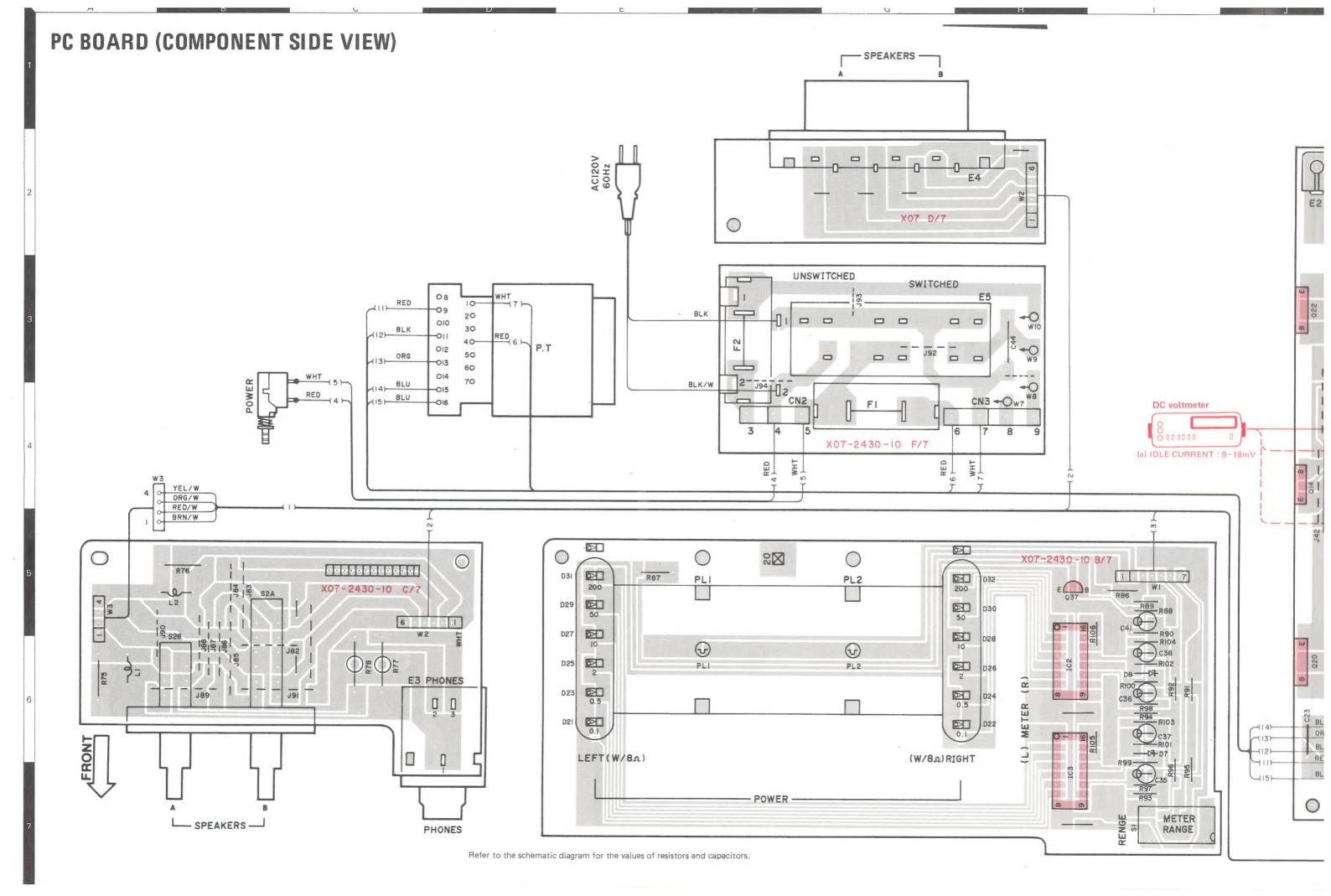
	В	С	E
Q1 - 4	_	17.7V	-18V
Q5, 6	17.7V	80.3V	17V
Q7,8	17.7V	81V	17V
Q9, 10	80.3V	77.8V	81V
Q11, 12	77.2V	1.2V	77.8V
Q13, 14	_	1.2V	-1.2V
Q15, 16	_	81V	0.6V
Q17, 18	_	-81V	-0.6V
Q19, 20	_	81V	-
021, 22	_	-81V	_
023, 24	_	_	OV
Q27, 28	_	_	1,2V
029,30	_	_	-1.2V
Q33	81V	_	81V
Q34	24V	34V	23.4V
Q35	0V	_	0V
Q36	23V	Relay ON: -12V Relay OFF: 23V	23V
Q37	-	_	14.7V

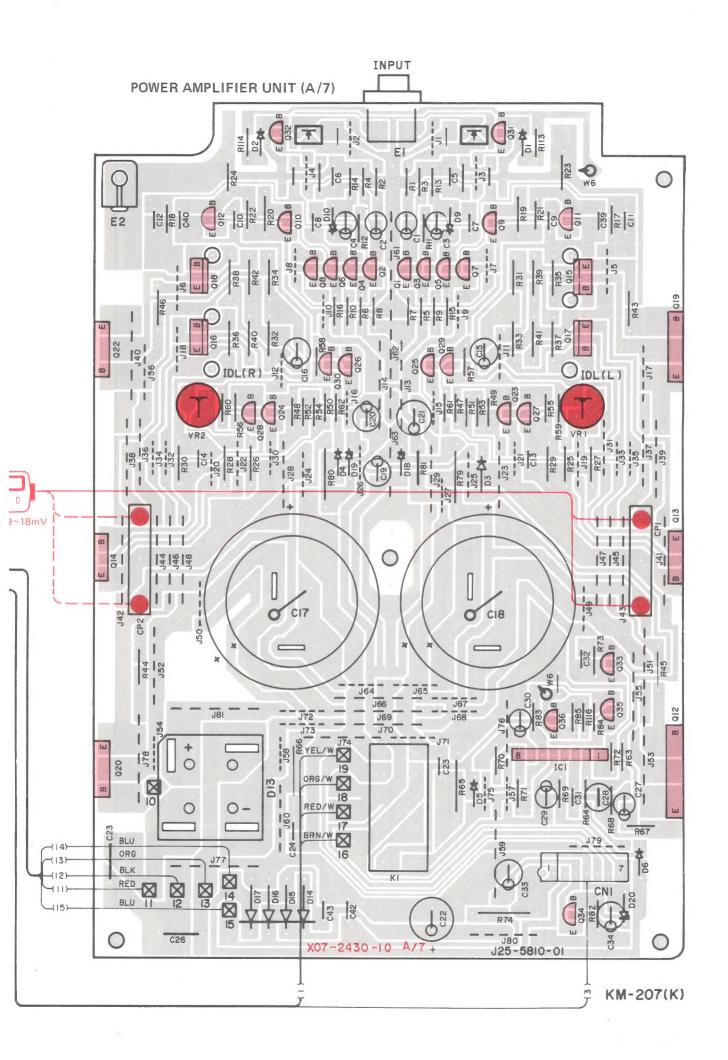
IC1

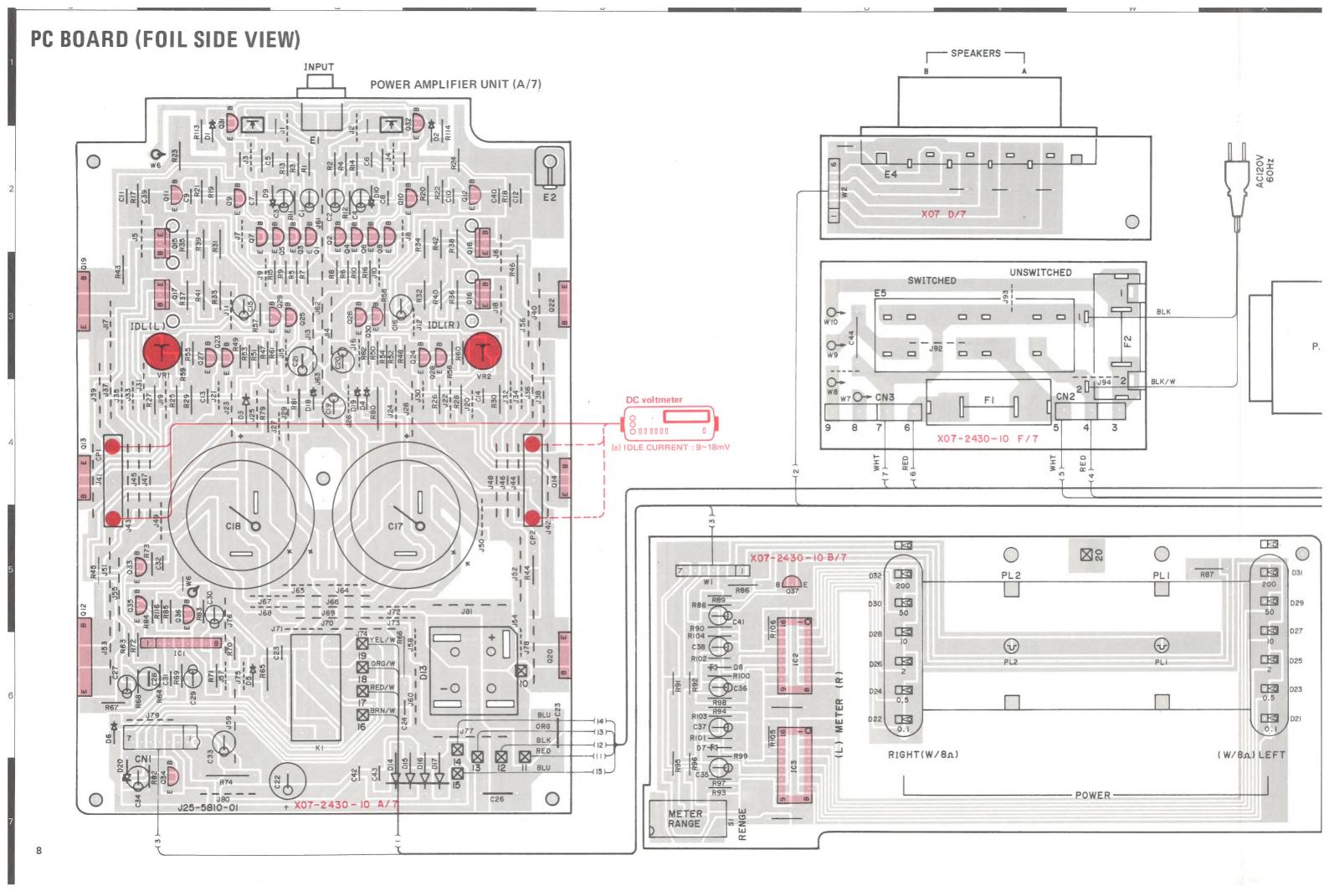
4	2.7V
5	OV
6	0.8V
7	2.2V
8	3.2V

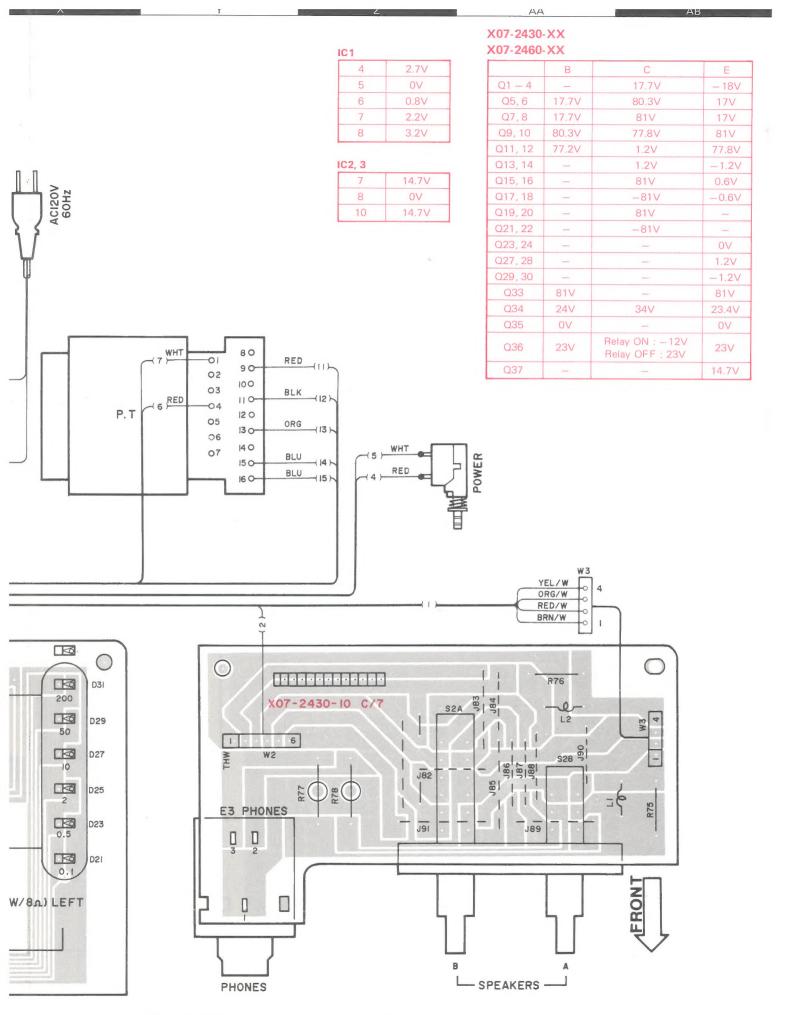
IC2. 3

IC2, 3					
7	14.7V				
8	0∨				
10	14.7V				

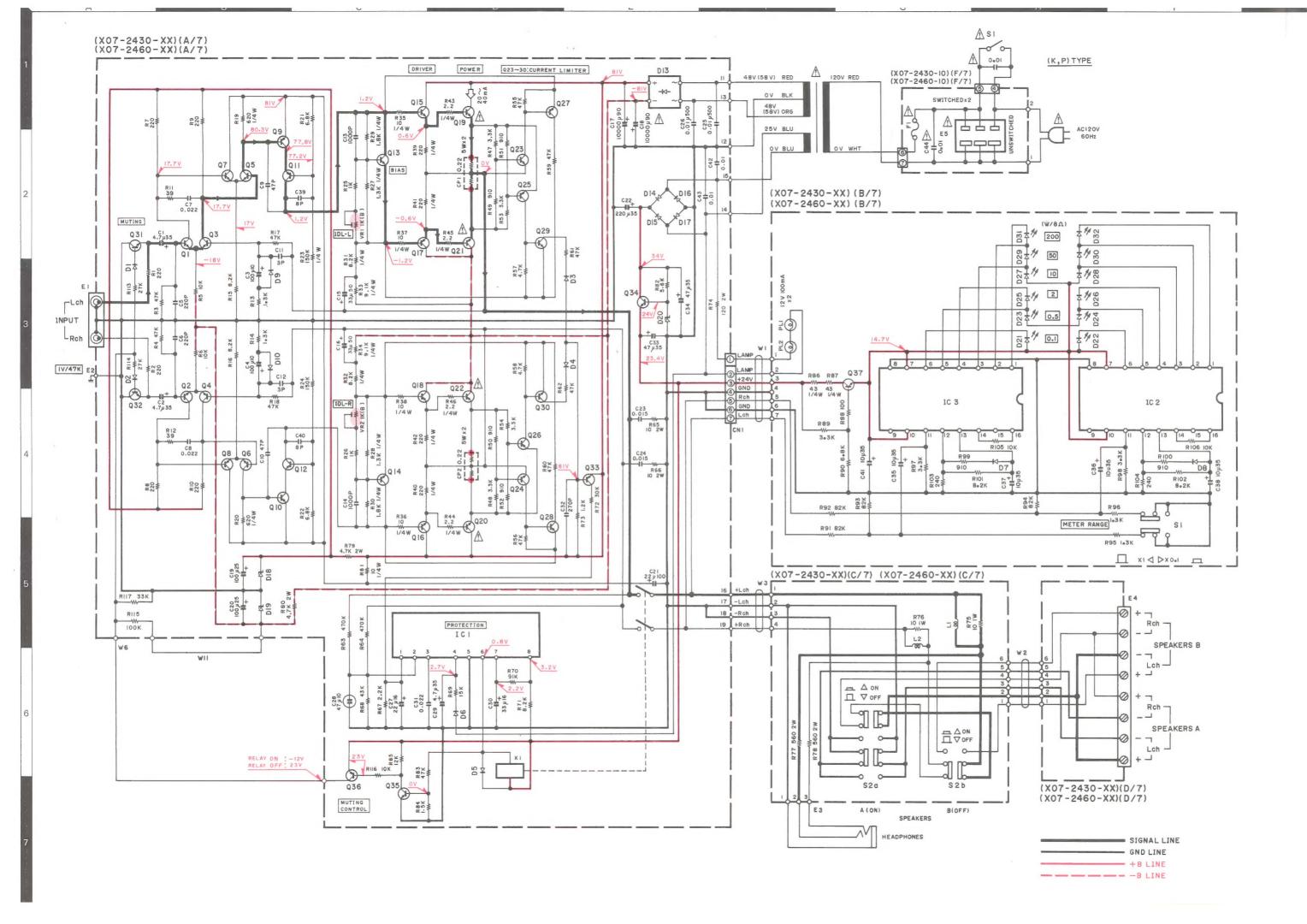


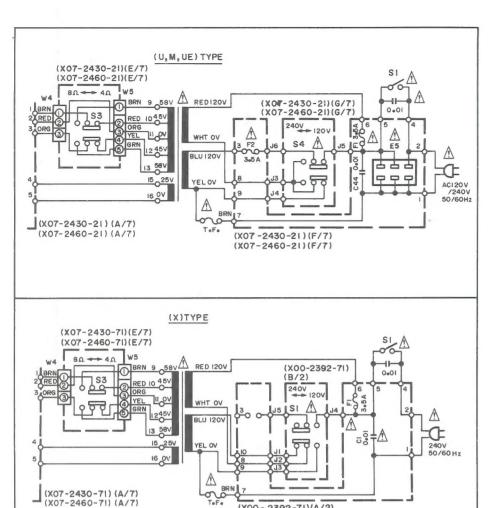




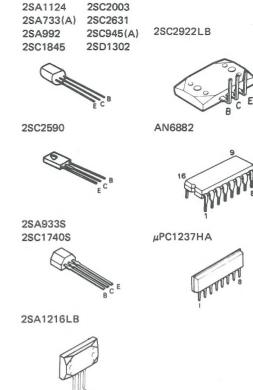


Refer to the schematic diagram for the values of resistors and capacitors.





(X00 - 2392-71)(A/2)



(XO7-2430-XX) JAPAN MADE (XO7-2460-XX) SINGAPORE MADE

DESTINATIO	Ref . No.	E/7	F/7	G/7	J92	J 93,94
0-10	K	NO	YES	NO	YES	YES
0-21	U,M,UE	YES	YES	YES	YES	NO
0-71	×	YES	NO	NO	NO	NO

uPC1237HA IC1 IC2,3 AN6882

2SC1845(F,E) :2SC945(A)(Q,P) or 2SC1740S(Q,R) Q5~8,23,24,35

Q9,10,25 ~ 28,36 : 2SA733(A)(Q.P)

or 2SA933S(Q,R) Q11,12 2SA1124 (Q,R) Q13,14 2SC3419(Y) Q15,16 2SC3944A(Q.R) 2SA 1535A(Q,R) Q17,18 019,20 2SC2922LB 021,22 2SA1216 LB Q29,30 2SC2631 (Q,R,S) Q31,32 2SDI302(S,T) 033 2SA992(F,E) Q34 2SC2590(Q,R) Q37 2SC2003(L.K)

D1,2,7~10 ISS133 or ISS176 D3~6 ISSI31 or ISSI78 D13 \$15 VR20 D14~17 DSMIAI or S5566B RDIBES(B) or HZSIBN(B) D18, 19

: RD24ES(B) or HZ\$24N(B) : B30-0431-05 D20 D21~ 32

CAUTION: For continued safety, replace safety critical components only with manufacturer's recommended parts (refer to parts list). AIndicates safety critical components. To reduce the risk of electric shock, leakage-current or resistance measurements shall be carried out (exposed parts are acceptably insulated from the supply circuit) before the appliance is returned to the customer.

2SC3419

2SA1535A

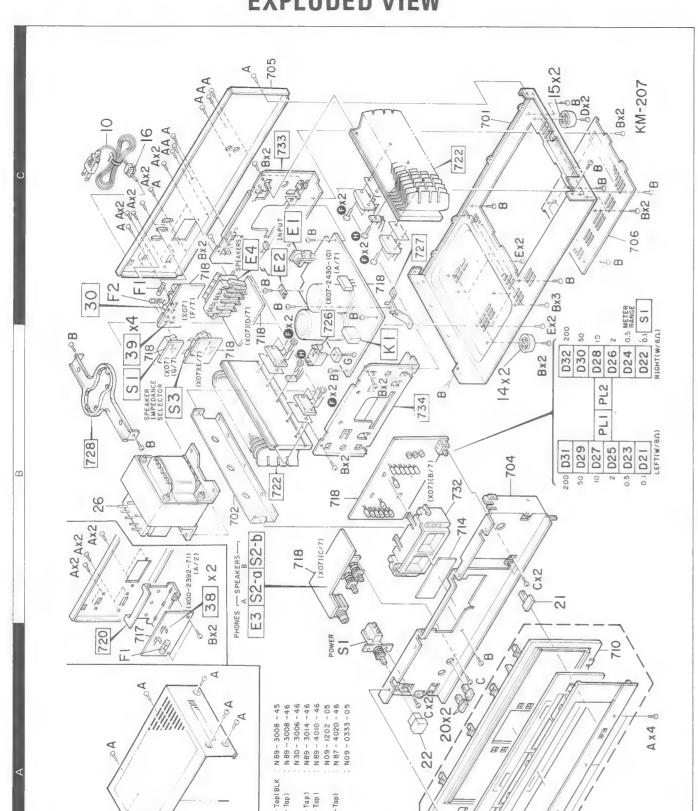
2SC3944A

- DC voltages are as measured with a high impedance voltmeter with no signal input. Values may vary slightly due to variations between individual instruments or/and units.
- Les tensions c.c. doivent être mesurées avec un voltmètre à haute impédance sans signal d'entrée. Les valeurs peuvent différer légèrement du fait des variations inhérentes aux appareils et aux instruments de mesure individuels.
- Die angegebenen Gleichspannungswerte wurden mit einem hochohmigen. Voltmeter ohne Eingangssignal gemessen. Dabei schwanken die Meßwerte aufgrund von Unterschieden zwischen einzelnen Instrumenten oder Geräten u.U. geringfügig.





EXPLODED VIEW



< E ○ □ □ □ □ □ □



PARTS LIST

× New Parts

Parts without Parts No. are not supplied.

Les articles non mentionnes dans le Parts No. ne sont pas fournis.

Telle ohne Parts No. werden nicht gellefert.

	Ref. No. 参照者号	Address 位 置	New Parts	Parts No. 部品番号	Description 部 品 名 / 規 格	Desti- Re nation mar 仕 向備
					KM-207	1 1
	1 2	1A 2A	*	A01-1639-01 A20-5434-02	METALLIC CABINET PANEL ASSY	
				846-0092-03 846-0094-03 846-0095-03 846-0096-13 846-0121-03	WARRANTY CARD WARRANTY CARD WARRANTY CARD WARRANTY CARD WARRANTY CARD	K U <u>UE</u> V F
ŀ			* * * *	850-8670-00 850-8671-00 850-8672-00 850-8673-00 858-0223-04	INSTRUCTION MANUAL INSTRUCTION MANUAL INSTRUCTION MANUAL INSTRUCTION MANUAL CAUTION CARD (PRE-SET 120V)	PMX M M
				B58-0513-04 B59-0092-00	CAUTION CARD (PRESFT220-240) SERVICE DIRECTORY	UE ULE
	10 10 10	10 10 10		E30-0812-05 E30-0974-05 E30-1341-05	AC POWER CORD AC POWER CORD AC POWER CORD	X X X
	F1 F1 F1	10 10 10		F05-3522-05 F05-3523-05 F05-7026-05	FUSE (SEMK®) (250V T3.5A) FUSE (250V 3.5A) FUSE (UL) (250V 7A)	KP X
			* * *	H01-7792-04 H10-3645-02 H10-3646-02 H25-0223-04 H25-0232-04	ITEM CARTON CASE POLYSTYRENE FOAMED FIXTURE POLYSTYRENE FOAMED FIXTURE PROTECTION BAG (750X350X0.03) PROTECTION BAG (235X350X0.03)	
	14 15 16	28 20 10		J02-0129-05 J02-0179-05 J42-0083-05 J61-0307-05	FOOT POWER CORD BUSHING WIRE BAND	
	20 21 22	2A 2B 2A		K27-0742-14 K27-1725-04 K29-2001-04	KNOB (BUTTØN) KNOB (BUTTØN) KNOB ASSY	
	26 26	1B 1B		L01-7901-05 L01-7905-05	POWER TRANSFORMER POWER TRANSFORMER	NTE WX
⊢	S1	1A		S40-1094-05	PUSH SWITCH (POWER TYPE)	
⊢	C1 POWER SUP	PLY UN	ET (2	X00-2392-XX) -71: C91-0647-05	JAPAN MADE -72 : SINGAPORE MAD	E (X TYPE
	38	1B	*	E40-3054-05	PIN ASSY	
				F29-0072-05	INSULATING COVER	
	-		*	J13-0054-05 J21-3698-04 J61-0307-05	FUSE CLIP MOUNTING HARDWARE WIRE BAND	
L	S1 POWER	AMPLIE	IER	S31-2126-05 UNIT (X07-2430-XX) :	SLIDE SWITCH (POWER TYPE) JAPAN MADE (X07-2460-XX): SINGAPORE	MADE
	D21 -32 PL1 ,2	2B 2B		B30-0431-05 B30-1140-05	LED (LN21CPH) (12V, 0, 1A)	-71 : X

E: Scandinavia & Europe K: USA

P: Canada

U: PX(Far East, Hawaii) T: England M: Other Areas

UE : AAFES(Europe) X: Australia



PARTS LIST

* New Parts

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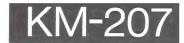
	f. No.	Address	Parts			Description			Re-
参	照番号	位置	新	部品書号	部	品名/規	格	仕 向	備书
C1 C3 C5 C7 C9	.2 .4 .6 .8			CE04KW1V4R7M CE04KW1A101M CC45FSL1H221J CF92FV1H223J CC45FSL1H470J	ELECTR® ELECTR® CERAMIC MF CERAMIC	4. 7UF 100UF 220PF 0. 022UF 47PF	35WV 10WV J J J		
C13 C15 C17	. 12 3 .14 5 .16 7 .18 7 .20			CC45FSL1H040C CF92FV1H102J CE04KW1H330M C90-1394-05 CE04KW1E101M	CERAMIC MF ELECTRO ELECTRO ELECTRO	4. OPF 1000PF 33UF 10000UF 100UF	C J 50WV 90WV 25WV		
	2 3 •24 5 •26			CE04KW2A220M CE04KW1V221M CF92FV1H153J CK45FE2H103P CE04KW1C220M	ELECTR® ELECTR® MF CERAMIC ELECTR®	22UF 220UF 0.015UF 0.010UF 22UF	100WV 35WV J P 16WV		
028 029 030 031 032)			C90-1334-05 CE04KW1V4R7M CE04KW1C330M CF92FV1H223J CC45FSL1H271J	NP-ELEC ELECTRØ ELECTRØ MF CERAMIC	47UF 4.7UF 33UF 0.022UF 270PF	10WV 35WV 16WV J J		
03E 035 041	3 +34 5 -38 7 +40 2 +43			CE04KW1V470M CE04KW1V100M CC45FSL1H080D CE04KW1V100M CK45FF1H103Z	ELECTR® ELECTR® CERAMIC ELECTR® CERAMIC	47UF 10UF 8. OPF 10UF 0. 010UF	35WV 35WV D 35WV Z		
044	1.			C91-0971-05	FILM	0.01UF	250WV	KPUUEM	
30 E1 E2 E2 E3		1C 1C 1C 1C 1C		E03-0078-05 E13-0229-05 E23-0077-05 E23-0149-05 E11-0162-05	AC NUTLET PHOND JACK TERMINAL TERMINAL PHONE JACK	(2P) (3P)		KPU <u>UE</u> M U <u>UE</u> M	
E4		10		E20-0823-05	LOCK TERMIN	AL B®ARD(E	3F)		
35)	1B		J13-0041-05	FUSE CLIP			KPU <u>UE</u> M	
L1	s 22			L39-0085-05	PHASE-COMPE	NSATION CO	IL.		
				N09-0333-05 N09-1202-05	TAPPING SCRI		+ロツカクサ) +ロツカクサ)		
R15 R25 R27	2 7 ,20 7 ,28 7 ,30			R90-0187-05 RD14AB2E621J RD14AB2E102J RD14AB2E132J RD14AB2E182J	MULTI-COMP FL-PROOF RD FL-PROOF RD FL-PROOF RD FL-PROOF RD	1. OK 1. 3K	K 5W J 1/4W J 1/4W J 1/4W J 1/4W		
R33 R35 R35	32 34 5 -38 7 -42 3 -46			RD14AB2EB22J RD14AB2E912J RD14AB2E10OJ RD14AB2E221J RD14AB2E2R2J	FL-PROOF RD FL-PROOF RD FL-PROOF RD FL-PROOF RD FL-PROOF RD	9.1K 10 220	J 1/4W J 1/4W J 1/4W J 1/4W J 1/4W		
	ò			RS14DB3D100J RS14KB3D100J RS14DB3D121J RS14DB3A100J RS14DB3D561J	FL-PROOF RS FL-PROOF RS FL-PROOF RS FL-PROOF RS FL-PROOF RS	10 120 10	J 2W J 2W J 2W J 1W J 2W	P.	

E: Scandinavia & Europe K: USA

P: Canada

U: PX(Far East, Hawaii) T: England M: Other Areas

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	Ref. No.	Address		Parts No.	Description	Desti- nation	Re-
	参照番号	位置	Parts	部品番号	部品名/規格		marks 備考
	R79 ,80 R81 VR1 ,2			RS14DB3D472J RD14GB2E100J R12-1083-05	FL-PROOF RS 4.7K J 2W FL-PROOF RD 10 J 1/4W TRIMMING POT.(1KB)IDL-L.R		
△	K1 S1 S2 S3 S4	28 18 18		\$51-2078-05 \$40-2351-05 \$42-2163-05 \$31-2127-05 \$31-2126-05	MAGNETIC RELAY PUSH SWITCH MULTIPLE PUSH SWITCH SLIDE SWITCH (POWER TYPE) SLIDE SWITCH (POWER TYPE)	UUEMX	
	D1 ,2 D1 ,2 D3 -6 D3 -6 D7 -10			199133 199176 199131 199178 199133	DINDE DINDE DINDE DINDE		
	D7 -10 D13 D14 -17 D14 -17 D18 :19			1SS176 S15VB20 DSM1A1 S5566B HZS18N(B)	DINDE DINDE DINDE DINDE ZENER, DINDE		
	D18 ,19 D20 D20 IC1 IC2 ,3			RD18ES(B) HZS24N(B) RD24ES(B) UPC1237HA AN6882	ZENER DIØDE ZENER DIØDE ZENER DIØDE IC(PØWER AMP) IC(7PT LED LEVEL METER DRIVER)		
	Q1 -4 Q5 -8 Q5 -8 Q9 ,10 Q9 ,10			2SC1845(F,E) 2SC1740S(Q,R) 2SC945(A)(Q,P) 2SA733(A)(Q,P) 2SA933S(Q,R)	TRANSISTÖR TRANSISTÖR TRANSISTÖR TRANSISTÖR TRANSISTÖR		
▲	Q11 ,12 Q13 ,14 Q15 ,16 Q17 ,18 Q19 ,20			2SA1124(@,R) 2SC3419(Y) 2SC3944A(@,R) 2SA1535A(@,R) 2SC2922LB	TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR		
A	Q21 ;22 Q23 ;24 Q23 ;24 Q25 -28 Q25 -28			2SA1216LB 2SC1740S(Q,R) 2SC945(A)(Q,P) 2SA733(A)(Q,P) 2SA933S(Q,R)	TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR		
	029 ,30 031 ,32 033 034 035			2SC2631(Q,R,S) 2SD1302(S,T) 2SA992(F,E) 2SC2590(Q,R) 2SC1740S(Q,R)	TRANSISTÖR TRANSISTÖR TRANSISTÖR TRANSISTÖR TRANSISTÖR		(
	035 036 036 037			2SC945(A)(Q,P) 2SA733(A)(Q,P) 2SA933S(Q,R) 2SC2003(L,K)	TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR		As fairly males as fairly as a

E: Scandinavia & Europe K: USA

P: Canada

U: PX(Far East, Hawaii) T: England

M: Other Areas

UE: AAFES(Europe) X: Australia



SPECIFICATIONS

Rated Power Output

Beth channels differen

150 watts per channel minimum RMS, both channels driven, at 8 ohms from 20 Hz to 20,000 Hz with no more than 0.03% total harmonic distortion.

Both channels driven	
(8 ohms, 1 kHz)	155 W + 155 W
Music Power	
(8 ohms)	310 W+310 W
Total Harmonic Distortion	
	0.015% at 1/2 rated power
20 Hz to 20,000 Hz	into 8 ohms
4 1.11-	
I Kriz	0.002% at 1/2 rated power
	into 8 ohms
Inter Modulation Distortion	
	0.002% at rated power into
	8 ohms
Frequency Response	
	-3 dB
Power Bandwidth	
(0.2 % T.H.D., 8 ohms)	10 Hz to 50 kHz
Signal-to-Noise Ratio (IHF-A)	120 dB (MAIN IN)
Damping Factor	More than 35 at 50 Hz
General	
Power Consumption	5 A (USA and Canada)
	350 W (Others)
AC Outlets	Switched 2. Unswitched 1
	(Except some area)
Dimensions	
	H 123 mm (4-13/16")
	D 269 mm (10-9/16")
Weight (Net)	
And the character and the char	0.5 kg (10.7 lb)

Note:

We follow a policy of continuous advancements in developments. For this reason specifications may be changed without notice.

Note:

Component and circuitry are subject to modification to insure best operation under differing local conditions. This manual is based on, the U.S.A. (K) standard, and provides information on regional circuit modification through use of alternate schematic diagrams, and information on regional component variations through use of parts list.

KENWOOD CORPORATION

Shionogi Shibuya Building, 17-5, 2-chome Shibuya, Shibuya-ku, Tokyo 150, Japan

KENWOOD U.S.A. CORPORATION 2201 East Dominguez Street, Long Beach, CA 90810; 550 Clark Drive, Mount Olive, NJ 07828, U.S.A.

KENWOOD ELECTRONICS CANADA INC.

P.O. Box 1075 959 Gana Court, Mississauga, Ontario, Canada L4T 4C2

KENWOOD ELECTRONICS BENELUX N.V. Mechelsesteenweg 418 B-1930 Zaventem, Belgium

KENWOOD ELECTRONICS DEUTSCHLAND GMBH Rembrucker-Str. 15, 6056 Heusenstamm, West Germany

TRIO-KENWOOD FRANCE S.A.

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13, Boulevard Ney, 75018 Paris, France

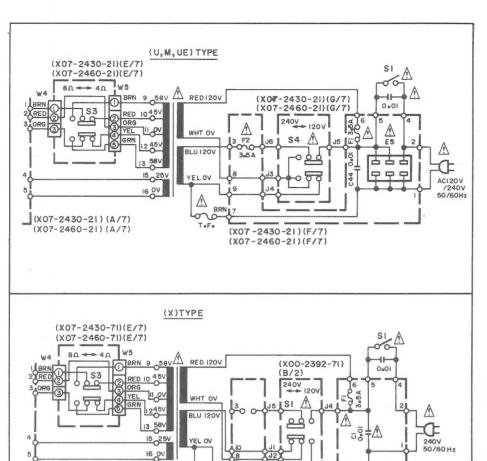
TRIO-KENWOOD U.K. LTD.

17 Bristol Road, The Metropolitan Centre, Greenford, Middx. UB6 8UP England

KENWOOD ELECTRONICS AUSTRALIA PTY. LTD.

4E Woodcock Place, Lane Cove, N.S.W. 2066, Australia

KENWOOD & LEE ELECTRONICS, LTD.
Wang Kee Building, 4th Floor, 34-37, Connaught Road, Central, Hong Kong



2SC2003 2SA1124 2SA733(A) 2SC2631 2SC2922LB 2SA992 2SC945(A) 2SC1845 2SD1302 AN6882 2502590 2SA933S 2SC1740S μPC1237HA

2SA1216LB



2SC3419



2SA1535A 2SC3944A



(XO7-2430-XX) JAPAN MADE (XO7-2460-XX) SINGAPORE MADE

(X07-2430-71) (A/7) (X07-2460-71) (A/7)

Ref. No.		E/7	F/7	G/7	J92	J 93,94
0-10	К	NO	YES	NO	YES	YES
0-21	U,M,UE	YES	YES	YES	YES	NO
0-71	×	YES	NO	NO	NO	NO

Δ

(X00 - 2392-71)(A/2)

ponents only with manufacturer's recommended parts (refer to parts list). AIndicates safety critical components. To reduce the risk of electric shock, leakage-current or resistance measurements shall be carried out (exposed parts are acceptably insulated from the supply circuit) before the appliance is returned to the customer.

CAUTION: For continued safety, replace safety critical com-

- DC voltages are as measured with a high impedance voltmeter with no signal input. Values may vary slightly due to variations between individual instruments or/and units.
- Les tensions c.c. doivent être mesurées avec un voltmètre à haute impédance sans signal d'entrée. Les valeurs peuvent différer légèrement du fait des variations inhérentes aux appareils et aux instruments de mesure individuels.
- Die angegebenen Gleichspannungswerte wurden mit einem hochohmigen. Voltmeter ohne Eingangssignal gemessen. Dabei schwanken die Meßwerte aufgrund von Unterschieden zwischen einzelnen Instrumenten oder Geräten u.U. geringfügig.

ICI IC2.3 AN6882 2SC1845(F,E) Q5~8,23,24,35 2SC945(A)(Q,P) or 2SC1740S(Q,R) Q9,10,25 ~ 28,36 : 2SA733(A)(Q.P) or 2SA933S(Q,R) Q11,12 2SA1124 (Q,R) Q13,14 2SC3419(Y) Q15,16 2SC3944A(Q,R) Q17,18 2SA 1535A(Q,R) Q19,20 2SC2922LB 021.22 2SA1216 LB 029,30 2SC2631 (Q,R,S) Q31,32 2SD1302(S,T) 2SA992(F,E) Q33 034 2SC2590(Q,R) 037 2SC2003(L,K) 01,2,7~10

µPC1237HA

ISS133 or ISS176 D3~6 ISS131 or ISS178 D13 \$15 VB20 D14~17 DSM IAI or S5566B RDISES(B) or HZSISN(B) DI8, 19 D20 RD24ES(B) or HZS24N(B)

D21~32 B30-0431-05

